

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS:

Claim 1 (Currently Amended) A heterobipolar transistor (HBT) comprising:
a substrate including at least a subcollector;
a buried refractory metal silicide layer located on the subcollector; and
a shallow trench isolation region located on a surface of said buried refractory metal silicide layer, wherein said buried refractory metal silicide layer extends beyond the edges of the shallow trench isolation region such that a portion of said buried refractory metal silicide layer is present in an undercut region.

Claim 2 (Original) The HBT of Claim 1 wherein said substrate comprising a semiconductor substrate selected from the group consisting of Si, SiGe, SiC, SiGeC, GaAs, InAs, InP, silicon-on-insulators, silicon germanium-on-insulators, and other III/V or II/VI compound semiconductors.

Claim 3 (Original) The HBT of Claim 2 wherein said semiconductor substrate is Si-containing.

Claim 4 (Original) The HBT of Claim 1 wherein said subcollector is doped with C.

Claim 5 (Original) The HBT of Claim 1 wherein said shallow trench isolation region and said buried refractory metal silicide layer are located in an opening that comprises nitride or oxynitride spacers.

Claim 6 (Original) The HBT of Claim 1 wherein said refractory metal silicide layer comprises a silicide of Ti, Co, W, Ta, Ni or alloys thereof.

Claim 7 (Original) The HBT of Claim 6 wherein said refractory metal silicide layer comprises a silicide of Co, Ta or W.

Claim 8 (Original) The HBT of Claim 7 wherein said refractory metal silicide layer comprises a silicide of W.

Claim 9 (Original) The HBT of Claim 1 wherein said shallow trench isolation region comprises a trench dielectric material.

Claim 10 (Cancelled)

Claim 11 (Currently Amended) The HBT of Claim [[10]] 1 wherein said refractory metal silicide layer comprises a silicide of Ti, Co, W, Ta, Ni or alloys thereof.

Claim 12 (Original) The HBT of Claim 11 wherein said refractory metal silicide layer comprises a silicide of Co, Ta or W.

Claim 13 (Original) The HBT of Claim 12 wherein said refractory metal silicide layer comprises a silicide of W.

Claim 14 (Original) The HBT of Claim 1 further comprising a SiGe base and a polySi emitter located on said substrate including said subcollector.

Claims 15-30 (Cancelled)